



west virginia department of environmental protection

Office of Oil and Gas
601 57th Street SE
Charleston, WV 25304
(304) 926-0450
(304) 926-0452 fax

Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

November 05, 2013

WELL WORK PERMIT

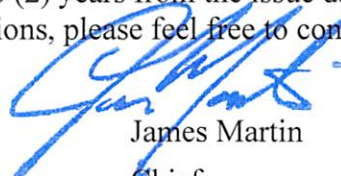
Rework-Secondary Recovery

This permit, API Well Number: 47-10302175, issued to HG ENERGY, LLC, is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas inspector.

Please be advised that form WR-35, Well Operators Report of Well Work is to be submitted to this office within 90 days completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

In addition to the applicable requirements of this permit, and the statutes and rules governing oil and gas activity in WV, this permit may contain specific conditions which must be followed. Permit conditions are attached to this cover letter.

Per 35CSR-4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0499 ext. 1654.



James Martin
Chief

Operator's Well No: MARY B. LONG NO. 251
Farm Name: LONG, STEVEN & TIMOTHY
API Well Number: 47-10302175
Permit Type: Rework-Secondary Recovery
Date Issued: 11/05/2013

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. Failure to adhere to the specified permit conditions may result in enforcement action.

CONDITIONS

1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
3. Well work activities shall not constitute a hazard to the safety of persons.

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

DMH
10-3-13

[illegible]

24)	APPLICANTS OPERATING RIGHTS were acquired from				Irene Reilly, et al			
	by Deed	Lease	X	Other Contract	Dated	January 17, 1889		
		Wetzel		County Clerk's Office in	Lease	Book	47	at Page 193

10/07



1) Date:	September 16, 2013		
2) Operator's Well No.	Mary B. Long No. 251		
3) API Well No.	47	103	2175
	State	County	Permit
4) UIC Permit No.	UIC2R10304AP		

STATE OF WEST VIRGINIA
NOTICE OF LIQUID INJECTION OR WASTE DISPOSAL WELL WORK PERMIT APPLICATION
FOR THE DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

(a) Name Steve & Timothy Long ✓
Address P. O. Box 6
Pine Grove, WV 26419

(b) Name _____
Address _____

(c) Name _____
Address _____

6)	Inspector	Derek Haught
	Address	PO Box 85
		Smithville, WV 26178
	Telephone	206-7613

Name NA

Address _____

Name NA
Address _____

Name	NA
Address	

7(c) Coal Lessee With Declaration Of Record	NA
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- (1) The Application for a Liquid Injection or Waste Disposal Well Work Permit on Form WW-3(B), which sets out the parties involved in the drilling or other work;
- (2) The plat (surveyor's map) showing the well location on Form WW-6; and
- (3) The Construction and Reclamation Plan on Form WW-9 (unless the well work is only to plug a well), which sets out the plan for erosion and sediment control and for reclamation for the site and access road.

THE REASON YOU RECEIVED THESE DOCUMENTS IS THAT YOU HAVE RIGHTS REGARDING THE APPLICATION WHICH ARE SUMMARIZED IN THE "INSTRUCTIONS" ON FORM WW-3(A) DESIGNATED TO YOU. HOWEVER YOU ARE NOT REQUIRED TO TAKE ANY ACTION AT ALL.

The person signing this document shall make the following certification:

Well Operator	HG Energy, LLC
Address	5260 Dupont Road Parkersburg, WV 26101
By:	<u>Diane C White</u>
Its:	Accountant

Diane C White

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at: depprivacyofficer@wv.gov

**State of West Virginia
Division of Environmental Protection
Section of Oil and Gas**

Well Operator's Report of Well Work

COPY

Farm name: LONG, HELEN L.

Operator Well No.: MARY LONG 251

LOCATION: Elevation: 733'

Quadrangle: PINE GROVE 7.5'

District: GRANT

County: WETZEL

Latitude: 3,150 Feet south of 39 Deg 35 Min 0 Sec.

Longitude: 10,950 Feet west of 80 Deg 37 Min 30 Sec.

Company: EAST RESOURCES, INC.
P.O. BOX 5519
VIENNA, WV 26105-5519

Agent: PHILIP S. ONDRUSEK

Inspector: MIKE UNDERWOOD

Permit Issued: 06/02/06

Well work Commenced: 06/18/06

Well work Completed: 09/08/06

Verbal plugging

permission granted on:

Rotary X Cable Rig Total Depth (feet) 2840'Fresh water depths (ft) 50'Salt water depths (ft) Is coal being mined in area (Y/N) NCoal Depths (ft): NA

Casing/ tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
7"	611'	611'	150 sks
4 1/2"	2759'	2759'	150 sks

OPEN FLOW DATA

* WATERFLOOD PRODUCER

Producing formation Gordon Pay zone depth (ft) 2554'-2564'
 Gas: Initial open flow * MCF/d Oil: Initial open flow * Bbl/d
 Final open flow * MCF/d Final open flow * Bbl/d
 Time of open flow between initial and final tests Hours
 Static rock pressure psig (surface pressure) after Hours

Second producing formation Big Injun/Big Lime Pay zone depth(ft) 1714'-1722', 1834'-1840'
 Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
 Final open flow MCF/d Final open flow Bbl/d
 Time of open flow between initial and final tests Hours
 Static rock pressure psig (surface pressure) after Hours

NOTE: ON BACK OF THIS FORM, PUT THE FOLLOWING: 1) DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2) THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: EAST RESOURCES, INC.

By: Ken HedraDate: 2/7/08

RECEIVED
Division of Oil and Gas
06/07/2013

Treatment :

Treated Gordon perforations 2554'-2564' w/ 250 gals. 15% HCl acid, 271 bbls cross linked gel, and 13,000 # 30/50 sand.

Treated Big Injun/Big Lime perforations 1714'-1722', 1834'-1840' w/ 1500 gals. 15% HCl acid, 186 bbls cross linked gel and 7,000 # 30/50 sand.

Well Log :

0	254	Sand and Shale
254	278	Sand
278	310	Shale
310	367	Sand
367	388	Shale
388	399	Sand
399	452	Shale
452	466	Sand
466	560	Shale
560	579	Sand
579	954	Shale
954	992	Sand
992	1340	Shale
1340	1398	Sand
1398	1430	Shale
1430	1464	Sand
1464	1470	Shale
1470	1480	Sand
1480	1620	Shale
1620	1633	Sand
1633	1660	Shale
1660	1710	Big Lime
1710	1956	Big Injun
1956	2520	Shale
2520	2543	Gordon Stray
2543	2552	Shale
2552	2565	Gordon
2565	2840	Shale
2840		TD

10302175RS

Form WW-9
Rev. 10/94

Page 3 of 3
API Number 47- 103 - 2175
Operator's Well No. Mary B. Long No. 251

STATE OF WEST VIRGINIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

CONSTRUCTION AND RECLAMATION PLAN AND SITE REGISTRATION APPLICATION FORM
GENERAL PERMIT FOR OIL AND GAS PIT WASTE DISCHARGE

Operator HG Energy, LLC OP Code 494497948
Watershed North Fork of Fishing Creek Quadrangle Pine Grove 7.5'
Elevation 733' County Wetzel District Grant
Description of anticipated Pit Waste: A pit will not be used
Do you anticipate more than 5,000 bbls of water to complete the proposed well work Yes No X
Will a synthetic liner be used in pit? NA If so, what mil.
Proposed Disposal Method For Treated Pit Wastes:
 Land Application
 Underground Injection (UIC Permit Number)
 Reuse (at API Number)
 Off Site Disposal (Supply Form WW-9 for disposal location)
 Other (Explain)
Drilling medium anticipated for this well? Air, fresh water, oil based, etc. NA
- If oilbased, what type? Synthetic, petroleum, etc.
Additives to be used? NA
Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc.
- If left in pit and plan to solidify, what medium will be used? Cement, lime, sawdust NA
- Landfill or offsite name/permit number?

DMA
10-7-13

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on August 1, 2005, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature Diane C White
Company Official (Typed Name) Diane C. White
Company Official Title Accountant

RECEIVED

Subscribed and sworn before me this 17 day of September 2013

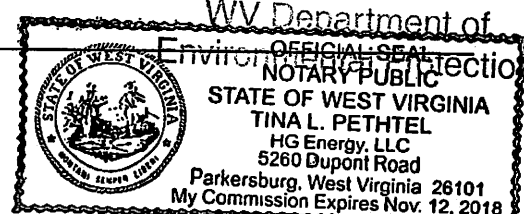
Office of Oil and Gas

Tina L. Pethel

OCT 07 2013
Notary Public

My commission expires Nov. 12, 2018

Form WW-9



WW9 Park

Legend

Property Boundary

Road

Existing Fence

Planned Fence

Stream

Open Ditch

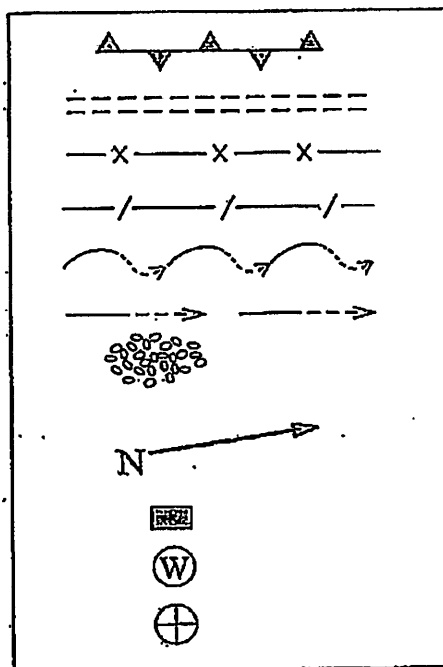
Rock

North

Buildings

Water Wells

Drill Site



Diversion

Spring

Wet Spot

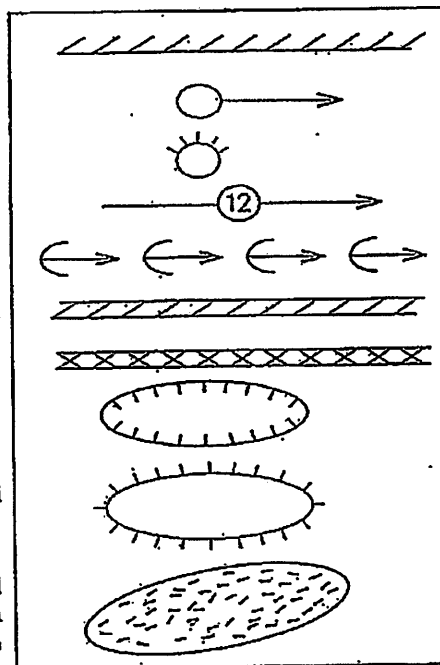
Drain Pipe

Waterway

Cross Drain

Filter Strip

Pit: Cut Walls

Pit: Compacted
Fill WallsArea of Land
Application
of Pit Waste

Proposed Revegetation Treatment: Acres Disturbed

Area I

Approx. 0.2 Ac.

Prevegetation pH

Area II

Approx. 0.1 Ac.

Lime 2 Tons/Acre or Correct to pH 6.5

Fertilizer (10-20-20 or Equivalent) 500 Lbs./Acre (500 lbs. Minimum)

Mulch Straw 2 Tons/Acre

SEED MIXTURES

Area I (Location)

Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

Area II (Road)

Seed Type	Lbs./Ac.
Tall Fescue	40
Ladino Clover	5

Attach:

Drawing(s) of road, location, pit and proposed area for land application

Photocopied section of involved 7.5' topographic sheet.

Plan approved by:

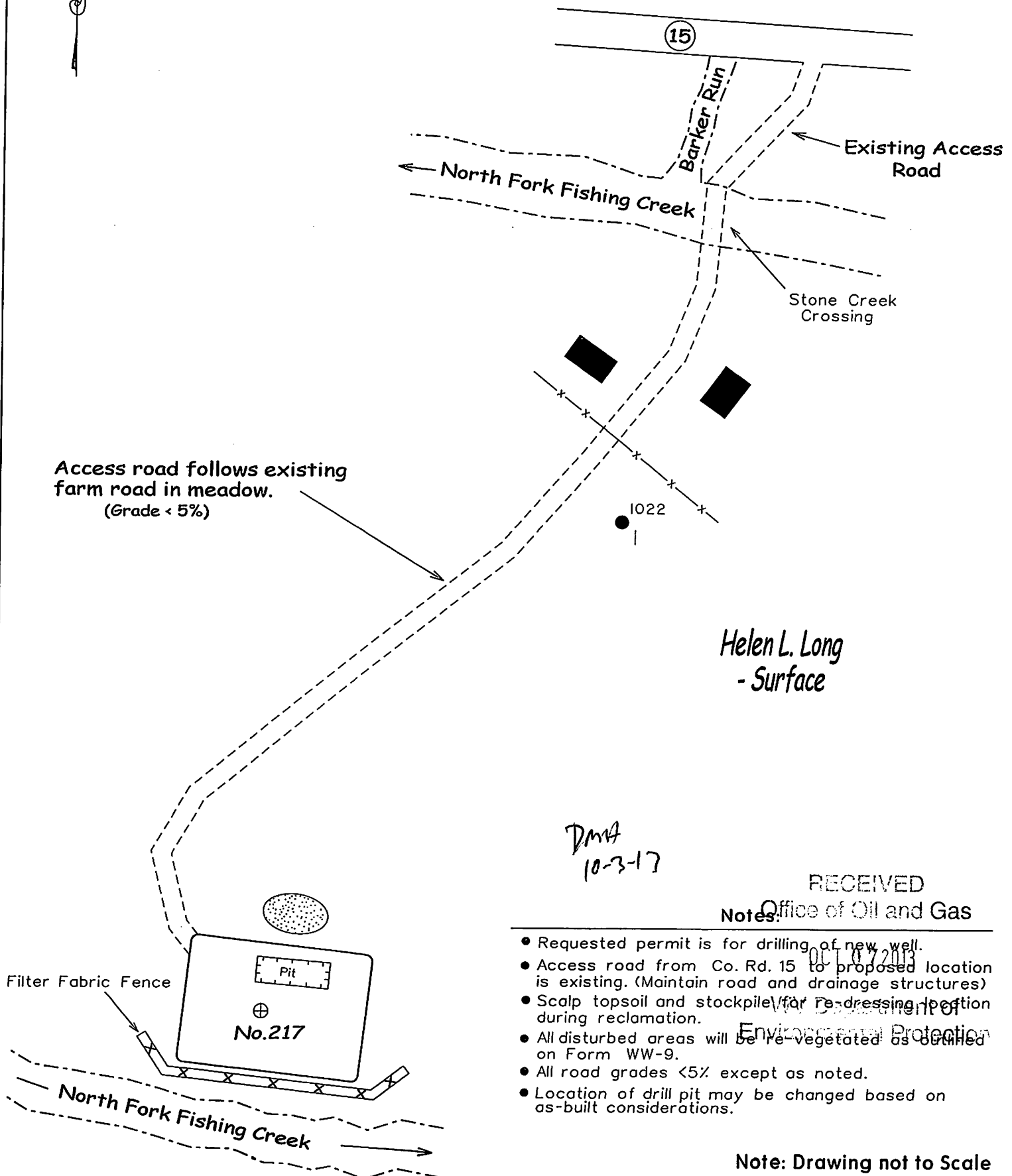
Comments:

Title: Oil + Gas InspectorDate: 10-3-17

Field Reviewed?

(☒) Yes(☐) No

Reclamation Plan For: Mary B. Long No.217



Revised Reclamation Plan For: Mary B. Long No.251

47-103-2175

Existing Low Water
Creek CrossingSee attached Reclamation Plan
for MB Long No.217 for detail
to County Road 15.Helen L. Long
- Surface2028
217

North Fork Fishing Creek

A

Existing Access Road
(~500' of < 5% Grade)Steven & Timothy Long
- Surface

Existing Location

No.251

Existing Vegetative
Filter Strip**NOTE**REFER TO THE WVDEP
EROSION AND SEDIMENT CONTROL
FIELD MANUAL VER. MAY 2012 FOR
BMPs CONTROLLING EROSION AND
SEDIMENT FROM SOIL-DISTURBING
OPERATIONS.RECEIVED
Office of Oil and Gas

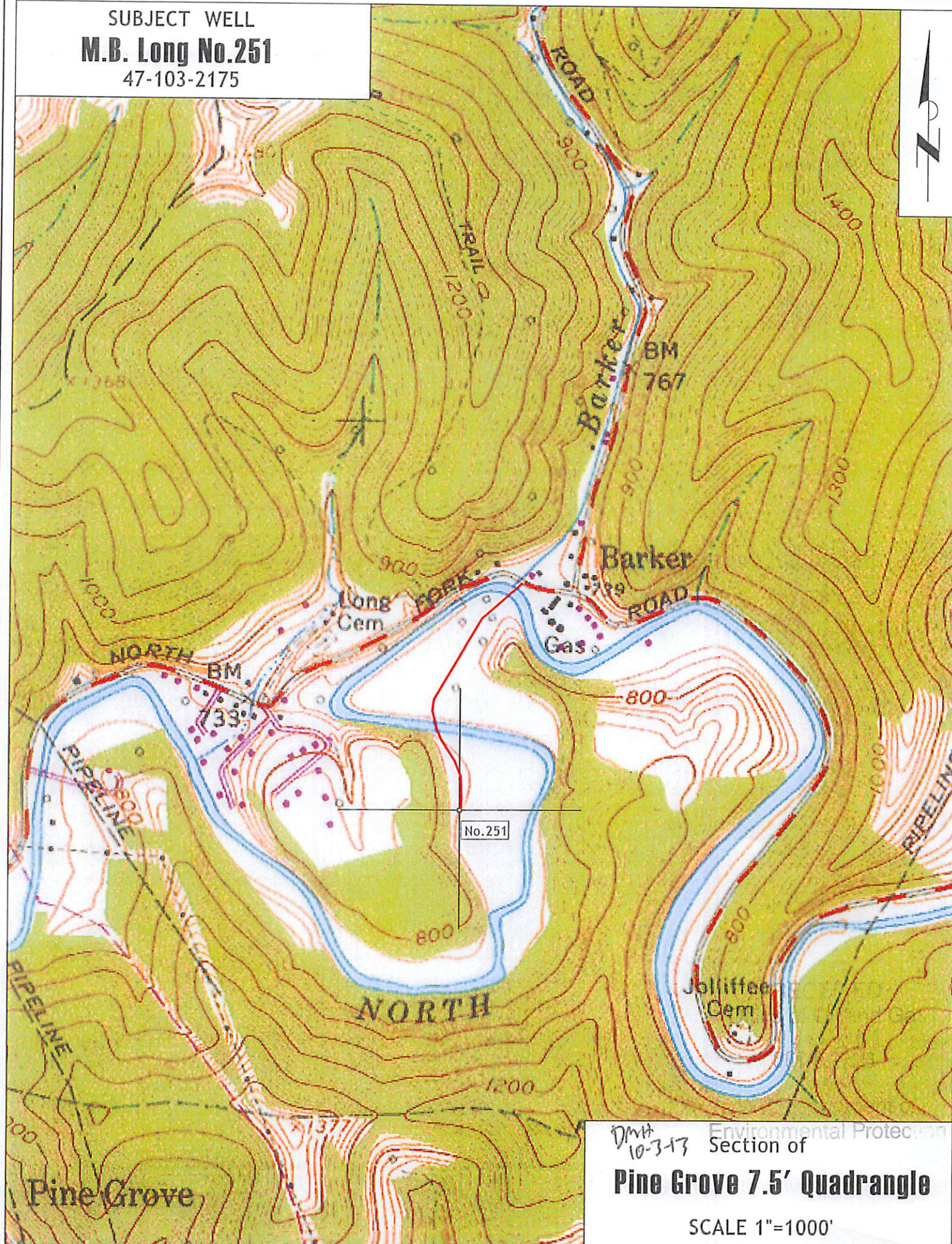
OCT 07 2013

NOTE:WELL LOCATION WAS BUILT AND RECLAIMED UNDER
DRILLING PERMIT No.47-103-2175. ONLY MINIMAL
EARTHWORK WILL BE REQUIRED FOR PROPOSED WELL
WORK. ALL DISTURBED AREAS WILL BE RE-VEGETATED
AS PER THE SEEDING PLAN ON FORM WW-9. NO WORK-
OVER PIT WILL BE REQUIRED FOR PROPOSED WELL WORK.**Notes:** WV Department of
Environmental Protection

- Requested permit is for conversion of existing well.
- Access from County Road to well location is existing. Structures will be maintained.
- All disturbed areas will be re-vegetated as outlined on Form WW-9.
- Maintain sediment barriers and drainage structures.
- All road grades <5% except as noted.

Note: Drawing not to Scale

SUBJECT WELL
M.B. Long No.251
 47-103-2175



DMH
 10-3-13 Environmental Protection
 Section of
Pine Grove 7.5' Quadrangle

SCALE 1"=1000'

Longitude - 80° 39' 49.9"

10,950'

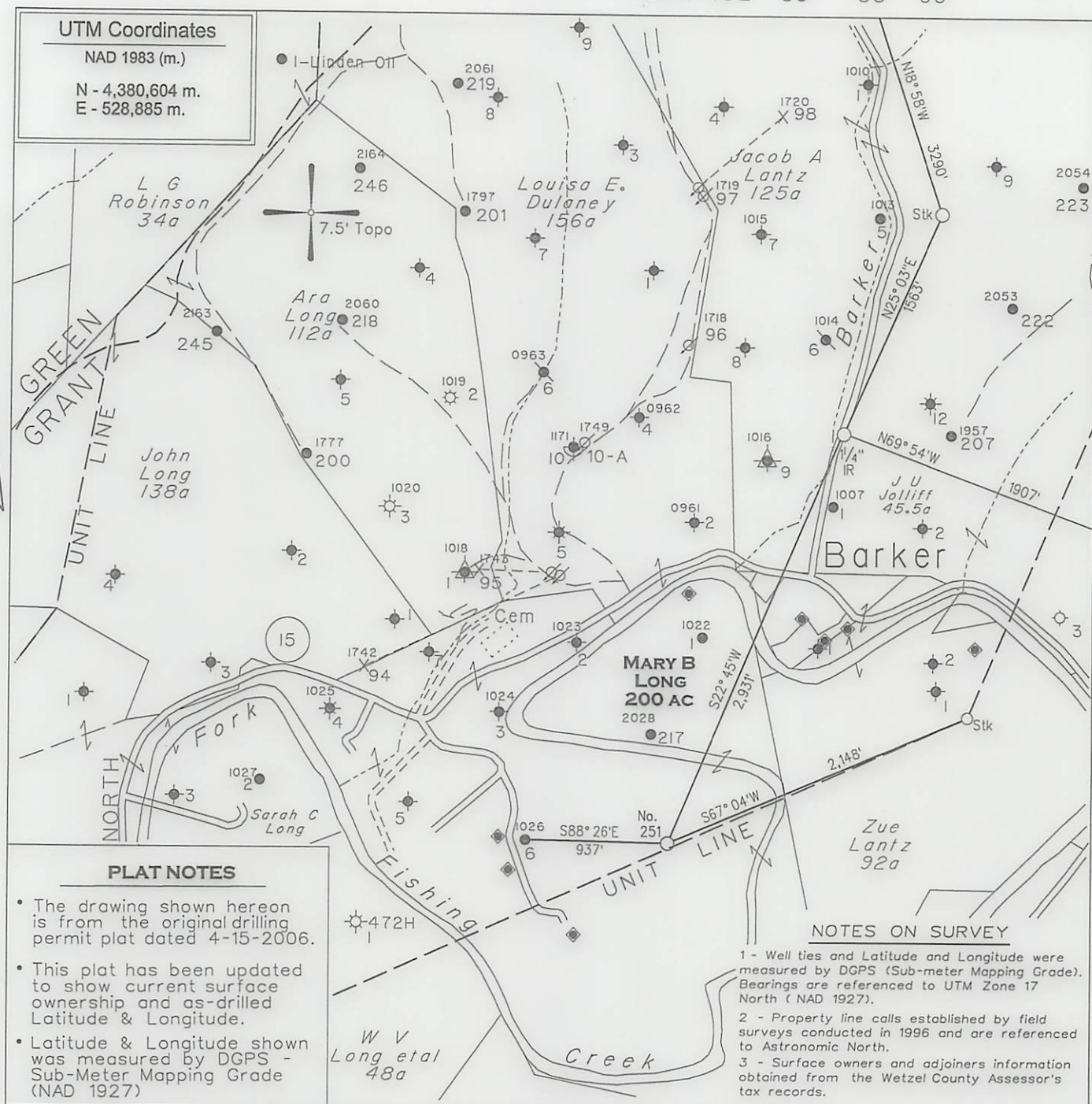
LATITUDE 39° 35' 00"

UTM Coordinates

NAD 1983 (m.)

N - 4,380,604 m.

E - 528,885 m.



PLAT NOTES

- The drawing shown hereon is from the original drilling permit plat dated 4-15-2006.
- This plat has been updated to show current surface ownership and as-drilled Latitude & Longitude.
- Latitude & Longitude shown was measured by DGPS - Sub-Meter Mapping Grade (NAD 1927)

NOTES ON SURVEY

- Well ties and Latitude and Longitude were measured by DGPS (Sub-meter Mapping Grade). Bearings are referenced to UTM Zone 17 North (NAD 1927).
- Property line calls established by field surveys conducted in 1996 and are referenced to Astronomic North.
- Surface owners and adjoiners information obtained from the Wetzel County Assessor's tax records.

(H) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

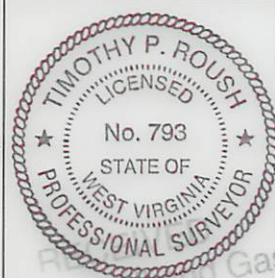
FILE NO. 1041-29
MAP NO. N68 N 11 S E W 2
SCALE 1" = 1000'
MINIMUM DEGREE OF
ACCURACY
PROVEN SOURCE OF
ELEVATION DGPS Survey

I THE UNDERSIGNED, HEREBY CERTIFY THAT
THIS PLAT IS CORRECT TO THE BEST OF MY
KNOWLEDGE AND BELIEF AND SHOWS ALL THE
INFORMATION REQUIRED BY LAW AND THE REGU-
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-
MENT OF MINES.

(SIGNED)

TIMOTHY P. ROUSH

PS 793



WEST VIRGINIA

Division of Environmental Protection
Office of Oil and Gas
601 57th Street
Charleston, West Virginia 25304



DATE September 4, 2013

FARM Mary B. Long No. 251

API WELL NO.

47-103-02175 RS

WELL TYPE: OIL ☐ GAS ☒ LIQUID INJECTION ☐ WASTE DISPOSAL ☐
(IF "GAS") PRODUCTION ☐ STORAGE ☐ DEEP ☐ SHALLOW ☐
LOCATION: ELEVATION 733' WATERSHED North Fork of Fishing Creek
DISTRICT Grant COUNTY Wetzel
QUADRANGLE Pine Grove 7.5'

SURFACE OWNER Steven & Timothy Long ACREAGE 97.26 Ac.

OIL & GAS ROYALTY OWNER Helen L. Long et al. LEASE ACREAGE 200 Ac.

LEASE NO. 24891-50

PROPOSED WORK: DRILL ☐ CONVERT ☒ DRILL DEEPER ☐ REDRILL ☐ FRACTURE OR
STIMULATE ☐ PLUG OFF OLD FORMATION ☐ PERFORATE NEW
FORMATION ☐ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) Convert to Liquid Injection

PLUG AND ABANDON ☐ CLEAN OUT AND REPLUG ☐

TARGET FORMATION Gordon ESTIMATED DEPTH 2,840'

WELL OPERATOR HG Energy, LLC

DESIGNATED AGENT Mike Kirsch

ADDRESS 5260 Dupont Road
Parkersburg, WV 26101ADDRESS 5260 Dupont Road
Parkersburg, WV 26101



HG Energy, LLC
5260 Dupont Road
Parkersburg, WV 26101
(304) 420-1100 - Office
(304) 863-3172 - Fax

September 16, 2013

Mr. Jeff McLaughlin
WVDEP
Division of Oil & Gas
601 57th Street
Charleston, West Virginia 25304

RE: Mary B. Long No. 251 (API 47-103-2175)
Grant District, Wetzel County
West Virginia

Dear Mr. McLaughlin:

Enclosed are the Forms WW-3A, WW-3B, WW-9, WW-2(B1), mylar of plat, reclamation plan, topo map and copy of the certified mailing receipt for a permit to convert the above-captioned shallow, producing well to an injection well. Our check in the amount of \$650 is attached.

If you have any questions regarding this application, please call me at 304-420-1119 or email at dwhite@hgenergyllc.com.

Very truly yours,

Diane C White

Diane C. White

Enclosures

cc: Steve & Timothy Long – Certified
Derek Haught - Inspector

#2386 - missing
9/17/13 \$650.00